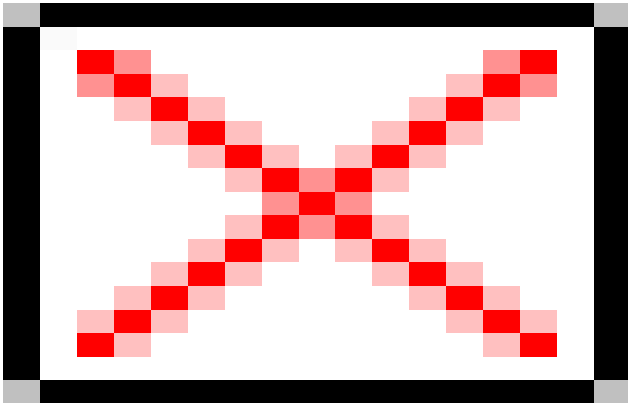


IMDC  
Dredging equipment  
Location:  
Le Havre, France  
Client:  
GIE Dragages-Ports



## Project Contact Information

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## Pre-dimensioning study for the new trailing suction hopper dredgers for the autonomous ports of Dunkerque, Le Havre, Rouen, Nantes St-Nazaire, Bordeaux et le Rochelle

GIE DRAGAGES-PORTS, an Economic Interest Group established between the French Government and the French maritime Autonomous Ports, needed a new master plan for the realization of the maintenance dredging works to be carried out by its shareholders. Therefore the consistency on medium and long term of their existing fleet of (6) intermediately-sized (1500-3000 m<sup>3</sup>) trailing suction hopper dredgers (TSHD) had to be reviewed and an investment programme for renewal of this fleet had to be proposed.

IMDC was asked to assist and completed the study in 4 phases :

### Phase 1 :

- Identification of the individual dredging needs of all the six Autonomous Ports concerned :Characterization of the different zones to be dredged by the new TSHD.
- Determination, for each of the ports individually, of the main characteristics of the most suitable TSHD that can meet these requirements.

### Phase 2 :

Identification of different scenarios regarding the composition of the new TSHD-fleet :  
Consolidation of the dredging needs of all six Autonomous Ports together and proposal of feasible scenarios for composing the best suitable new TSHD fleet. Per scenario is defined : the (minimal) number of dredgers needed, the hopper capacities and the technical equipment of each proposed dredger, taking into account the total of volumes to be dredged and the specific (technical) requirements of the different dredging zones.

### Phase 3 :

Estimation of the investment and operational costs for each of the proposed scenarios :  
During this evaluation, purchase costs as well as exploitation costs (including personnel, maintenance and repair and fuel costs) for a 25-yrs lifetime have been estimated.  
Estimates are based on use of the NIVAG-standards and input from different shipyards. Also some

sensitivity analyses (on fuel prices, personnel costs, etc?) have been carried out.

**Phase 4 :**

Identification of the most important cost parameters and their limiting values.

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